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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/944,033 | 08/30/2001 | Kamran Taymourian | 4537-1 | 5560 |
| 22442 | 7590 | 09/11/2003 | | |
| SHERIDAN ROSS PC 1560 BROADWAY SUITE 1200 DENVER, CO 80202 | | | EXAMINER KILKENNY, TODD J | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1733 | |

DATE MAILED: 09/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/944,033

Applicant(s)

TAYMOURIAN ET AL.

Examiner

Todd J. Kilkenny

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6-16-03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23,25-28 is/are pending in the application.
- 4a) Of the above claim(s) 1-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-23,25-28 is/are rejected.

- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7. 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Claims 1 – 9 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 4.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 10 – 18, 22, 23, 25, 27 and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to independent claims 10, 25 and 27, it is unclear what the scope of the limitation “completing” defines. Applicant is asked to clarify with reference to the original disclosure the intended scope of “completing”.

Allowable Subject Matter

4. The indicated allowability of claims 19 - 21 is withdrawn in view of the newly discovered reference(s) to Barton (US 3,700,470). Rejections based on the newly cited reference(s) follow.

5. The following is a statement of reasons for the indication of allowable subject matter: Claims 10 and 25 are allowable over the prior art of record for the reasons provided in the previous office action with respect to cancelled claim 24. Claim 27 is deemed to be directed to a nonobvious improvement over the invention patented in Pat. No. 3,700,470. The improvement comprises controlling a first pump mechanism and a first valve device in communication with at least second portions of the binder before second portions are combined to the composition.

Claim Rejections - 35 USC § 102

6. ~~The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that~~
form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 26 is rejected under 35 U.S.C. 102(b) as being anticipated by Barton (US 3,700,470; newly cited).

Barton teaches a building panel comprising foamed ceramic material. As to applicant's limitation of combining at least fly ash, water and at least a first binder to provide a composition, Barton discloses mixing ceramic material (e.g. power station fly ash), sodium silicate, amphoteric metal and water, wherein the sodium silicate serves as a binder (Col. 1, lines 45 – 72, Col. 5, lines 56 – 64).

As to applicant's limitation of joining first and second members to upper and lower portions of said composition Barton discloses pouring the mixture onto paper,

metal or laminate veneer and further discloses when "certain facing sheets are employed, for example paper or aluminum foil, the mixture adheres firmly thereto." (Col. 2, lines 23 – 30).

As to applicant's limitation of heating the composition after joining face members thereto, wherein said composition expands, Barton suggests curing with facing sheets (Col. 1, lines 17 – 22; see Examples), wherein said mixture continues to foam (see example 5).

Claim Rejections - 35 USC § 103

8. ~~The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all~~
obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 19 - 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barton (US 3,700,470; newly cited) in view of Anderson et al (US 5,658,624; newly cited).

As addressed in the 102(b) rejection above, Barton discloses a building panel having first and second facing sheets joined to a core mixture, said core mixture comprising fly ash, sodium silicate, amphoteric metal and water, wherein the sodium silicate serves as a binder. Barton further discloses heating said mixture with facing sheets joined thereto to cure, wherein said heating reads on applicant's claimed preheating step as defined in claims 19 and 21, as it is the only heating step claimed.

The mixture foams during said cure heating wherein one of ordinary skill in the art at the time of the invention would have readily appreciated foaming would expand (applicant's claim 19) the mixture (See examples).

As to applicant's limitation defining the composition to have a viscosity at least about 600,000 centipoises, Barton discloses viscosity control may be employed in controlling the final strength, but fails to disclose any viscosity measurements. Barton further discloses said mixture can be extruded or cast between two sheets (Col. 2, lines 23 – 30, Examples 2 and 3).

Anderson et al teach articles formed by extruding hydraulically settable compositions and disclose the mixtures should have a viscosity adequate to make them form stable but small enough to render them flowable using an extruder which includes viscosities in the range of 200 poise to 10^7 poise depending on the shear rate (Col. 23, lines 23 – 31). It is further noted that Anderson et al disclose said hydraulically settable materials include fly ash and the articles include laminated structures, e.g. extruded cores with facing sheets (Col. 15, lines 40 – 55).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have the viscosity of the fly ash mixture of Barton be at least 600,000 centipoises when joining first and second facing sheets thereto, in view of Barton suggesting to extrude to shape said mixture and Anderson et al disclosing that extruded hydraulically settable mixtures should have a viscosity adequate to make them form-stable but small enough to render flowable using an extruder and reciting 10^7 poise as an adequate viscosity.

As to claim 21 and defining said composition to have bubbles holding air, again in view of Barton disclosing said mixture to foam while heating, one of ordinary skill in the art would have readily appreciated that foaming implies bubbles.

As to claim 20, Barton suggests if desired, the temperature of the mixture may be raised to initiate the foaming reaction (Col. 2, lines 19 – 22). That is, Barton teaches a heating step to initiate foaming and a later heating step to cure, i.e. two heating steps. Barton however, fails to positively suggest the first heating step to be carried out after joining facing sheets to the mixture so as to have both heating steps carried out after joining of the facing sheets. However, it would have been within the purview of one of ~~ordinary skill in the art to heat to initiate the foaming after joining the facing sheets to the~~ mixture to thereby heat both the core and facing sheets and only the expected results would be achieved.

Response to Arguments

10. Applicant's arguments with respect to claims 19 – 21 and 26 have been considered but are moot in view of the new ground(s) of rejection. Newly cited Barton (US 3,700,470) anticipates a method of making a wallboard having a core composition comprising fly ash, binder and water, and first and second members joined to said core composition wherein said first and second members and core composition are heated after joining which foams the composition. Foaming implies both expanding the composition and having bubbles within the composition. Furthermore, Anderson et al (US 5,658,624) is provided to render obvious applicant's claimed viscosity.

Conclusion

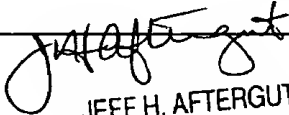
Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Todd J. Kilkenny** whose telephone number is **(703) 305-6386**. The examiner can normally be reached on Mon - Fri (9 - 5).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on (703) 308-2058. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

TJK

TJK


JEFF H. AFTERGUT
PRIMARY EXAMINER
GROUP 1300